

### **Abstract of the Disclosure**

Trilayered Beam MEMS Device and Related Methods. According to one embodiment, a method for fabricating a trilayered beam is provided. The method can include depositing a sacrificial layer on a substrate and depositing a first conductive layer on the sacrificial layer. The method can also include forming a first conductive microstructure by removing a portion of the first conductive layer. Furthermore, the method can include depositing a structural layer on the first conductive microstructure, the sacrificial layer, and the substrate and forming a via through the structural layer to the first conductive microstructure. Still furthermore, the method can include the following: depositing a second conductive layer on the structural layer and in the via; forming a second conductive microstructure by removing a portion of the second conductive layer, wherein the second conductive microstructure electrically communicates with the first conductive microstructure through the via; and removing a sufficient amount of the sacrificial layer so as to separate the first conductive microstructure from the substrate, wherein the structural layer is supported by the substrate at a first end and is freely suspended above the substrate at an opposing second end.